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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/617,308	07/14/2000	Toshitaka Agano	Q58739	8383

7590 06/18/2003

Sughrue Mion Zinn MacPeak & Seas
Darryl Mexic
2100 Pennsylvania Avenue N W
Washington, DC 20037

EXAMINER

ABDULSELAM, ABBAS I

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 06/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/617,308

Applicant(s)

AGANO, TOSHITAKA

Examiner

Abbas I Abdulsalam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. A copy of a foreign document has been received.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (USPN 5185712) in view of Takahashi et al. (USPN 5654756).

Regarding claims 1 and 10, Sato teaches a liquid crystal display panel (12) including display sections (13R, 13G 13 B) with full color images formed by superposing the red, green and blue images displayed by the panel. (col. 4, lines 24-36, col. 5, lines 18-23 and Fig 2). Sato does not disclose "displaying the monochromatic image having a higher gradation resolution than reproduction performance of each of the R, G, and B cells in color display device" Takahashi on the other hand teaches an image pick up apparatus allowing the reduction as well as increase of resolution with respect to mono-color image element. Particularly, Takahashi teaches a mono-color CCD as the image pick-up element and can provide a color picture of higher resolution. See col. 2, lines 40-50 and col. 9, lines 5-12.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify Sato's image display/ pick up apparatus to include Takahashi's compact image pick-up element. One would have been motivated in view of the suggestion in Takahashi

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that the compact image pick up element equivalently provides the desired higher resolution of the monochromatic image. The use of compact image pick-up element helps function an image pick up apparatus as taught by Takahashi.

In addition, with regard to claim 10, Takahashi teaches a mono-color image pick up element (4) and a control unit (7) converting color field sequential primary chrominance signal, M into predetermined video signal S, and matrix circuit (10) for converting the primary color video signals R, G, B into luminance signal Y (RBG). Takahashi also teaches a memory device (8) supplying color-field sequential primary chrominance signal of a triple speed T that is received by CRT (12) whose picture is colored by a color filter (13a). See col. 5, lines 9-39 and Fig 6.

Regarding claim 2, Sato teaches that one full-color is expressed by three pixels of red green and blue.

Regarding claims 3, 6, 8, 13, 15, and 21, Takahashi teaches a converter sequentially or simultaneously reading out the color-field sequential signals stored with respective colors in the memory and convert them into desired video signals of various color spaces. (See the abstract).

Regarding claims 5, 7, 12, 14, and 22-23, Takahashi teaches a control circuit (9) for red, blue and green (ROE, BOE, GOE) signals and supplies them to the memory device (8). See col. 5, line 67 and col. 6, lines 1-10.

Regarding claims 9 and 16, Takahashi teaches a control means sequentially converting a plurality of color lights in terms of predetermined frequency and turn on period of light emitting means. See col. 3, lines 8-26 and Fig 8.

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Regarding claims 11 and 19, Takahashi teaches the use of color modulation circuit (11) for performing color modulation on the basis of luminance signal Y. See Fig 7.

Regarding claims 17-18, Takahashi teaches an image pick up apparatus and method taking an image to generate color video signal in a desired configurations. See col. 1, lines 6-11

Regarding claims 4 and 20, Sato teaches adjusting the luminance s of light beams to be respectively radiated from the backlight (14) onto the liquid crystal display sections (13R, 13 G 13B). See col. 6, lines 3-14.

Conclusion

3. The prior art made of record and not relied upon is considered to applicant's disclosure.

The following arts are cited for further reference.

U.S. Pat. No. 6,570,613 to Howell

U.S. Pat. No. 6,185,367 to Keery et al.

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4. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Abbas Abdulsalam** whose telephone number is **(703) 305-8591**. The examiner can normally be reached on Monday through Friday (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe**, can be reached at **(703) 305-4709**.

Any response to this action should be mailed to:

Commissioner of patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand delivered responses should be brought to Crytal Park II, Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology center 2600 customer Service office whose telephone number is (703) 306-0377.

Abbas Abdulsalam

Examiner

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RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600